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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/467,324	12/20/1999	Barrett Comisky	INK-064 (2108/)	2238

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EXAMINER
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O NEILL, GARY W

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/467,324

Examiner

Gary O'Neill

Applicant(s)

COMISKY ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6,7,11-20,25,34-36 and 38-40 is/are rejected.
- 7) ☒ Claim(s) 2-5,8-10,21-24,26-33 and 37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Detailed action*.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. Receipt is acknowledged of Information Disclosure Statement submitted 8/15/00, which has been considered by the examiner.

### ***Drawings***

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this office action. The early submission of formal drawings will permit the office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 6, 7, 34, 35, and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 1, 6, 7, 34, 35, and 36 recite the limitation "a first electrode" within the body of each claim without reciting a second or other electrode. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 11-20, 25, 34-36, and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Dalisa et al. (4218302).

Dalisa et al. discloses, as in claim 11, a display, comprising: (a) an electrophoretic display element (22); and (b) a vapor-permeable electrode (#50 & col. 3, lines 40-48) adjacent said display element.

Dalisa et al. discloses, as in claim 12, the display wherein said electrophoretic display element comprises: a capsule (fig.2); a dispersing fluid (68) having a first optical property (col.4, lines 63-67 & col.5, lines 1-6) disposed within said capsule; and at least one electrophoretically-mobile particle (76) disposed within said capsule, said at least one electrophoretically-mobile particle having a second optical property (col.4, lines 63-67 & col.5, lines 1-6) different from said first optical property, said at least one electrophoretically-mobile particle adapted to change position within said capsule under the influence of an applied electric field, thereby changing the optical properties of said display element (col.4, lines 1-10).

Dalisa et al. discloses, as in claim 13, the display wherein said vapor-permeable electrode comprises an electrode permeable to water vapor (#50 & col. 3, lines 40-48).

Dalisa et al. discloses, as in claim 14, the display wherein said vapor-permeable electrode comprises a reticulated electrically conductive structure (#50 & col. 3, lines 40-48).

Dalisa et al. discloses, as in claim 15, the display wherein said vapor-permeable electrode comprises a wire mesh (#50 & col. 3, lines 40-48).

Dalisa et al. discloses, as in claim 16, the display wherein said vapor-permeable electrode comprises a reticulated layer at least partially coated with an electrically conductive material (#50 & col. 3, lines 40-48).

Dalisa et al. discloses, as in claim 17, the display wherein said vapor-permeable electrode comprises a reticulated layer at least partially impregnated with an electrically conductive material (col.3, lines18-67).

Dalisa et al. discloses, as in claim 18, an electrostatically addressable display (fig.2), comprising: (a) an electrophoretic display element (22) having a first surface (30) and a second surface (fig.2);(b) a protective layer (70) disposed adjacent said first surface of said display element, said protective layer capable of transmitting charge; and (c) an electrode (50) disposed adjacent said second surface of said display element.

Dalisa et al. discloses, as in claim 19, the display wherein said protective layer is flexible (col.4, lines 11-25, thin layer coat by sputtering).

Dalisa et al. discloses, as in claim 20, the display wherein said electrophoretic display element comprises: (i) a capsule (fig.2); (ii) a dispersing fluid (68) having a first optical property (col. 4, lines 63-67 & col.5, lines 1-6) disposed within said capsule; and (iii) at least one electrophoretically-mobile particle (76) disposed within said capsule, said at least one electrophoretically-mobile particle having a second optical property (col. 4, lines 63-67 & col.5, lines 1-6) different from said first optical property, said at least one electrophoretically-mobile particle adapted to change position within said capsule under

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the influence of an applied electric field, thereby changing the optical properties of said display element (col.4, lines 1-10).

Dalisa et al. discloses, as in claim 25, the display wherein said protective layer disposed adjacent said first surface of said display element comprises a layer that conducts charge in a direction substantially perpendicular to the layer (fig.2).

Dalisa et al. discloses, as in claim 34, a method of addressing an electrostatically addressable display element (fig.2), comprising the steps of (a) providing an electrophoretic element comprising: (i) a capsule (fig.2); (ii) a dispersing fluid (68) having a first optical property (col. 4, lines 63-67 & col.5, lines 1-6) disposed within said capsule; and (iii) at least one electrophoretically-mobile particle (76) disposed within said capsule, said at least one electrophoretically-mobile particle having a second optical property (col. 4, lines 63-67 & col.5, lines 1-6) different from said first optical property, said at least one electrophoretically-mobile particle adapted to change position within said capsule under the influence of an applied electric field, thereby changing the optical properties of said display element (col.4, lines 1-10); (b) providing a protective layer (70) disposed adjacent said capsule, said protective layer adapted to transmit charge; (c) providing a first electrode (44) disposed adjacent said capsule; (d) disposing adjacent said protective layer an addressing electrode (50); and (e) activating said addressing electrode in conjunction with said first electrode to subject said electrophoretic element to a selected one of said first applied electric field and said second applied electric field produced between said first electrode and said addressing electrode so as to address said electrophoretic element (col.4, lines 1-10 & col.5, lines 7-25).

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Dalisa et al. discloses, as in claim 35, the method wherein: step (b) comprises providing a layer of an insulating material (48) having a plurality of conductive structures disposed therethrough (col.3, lines 40-49); and step (e) comprises activating said addressing electrode in conjunction with said first electrode by touching at least one of said conductive structures so as to apply a selected one of said first applied electric field and said second applied electric field produced between said first electrode and said conductive structure so as to address said electrophoretic element (col.3, lines 40-67 & col.4, lines 1-10).

Dalisa et al. discloses, as in claim 36, the method wherein: step (b) comprises providing a layer of a material having a more resistive region (48) and a less resistive region (44), said less resistive region comprising at least one island adjacent said electrophoretic element, said more resistive region having at least one pinhole (col.3, lines 40-59) therethrough, said at least one pinhole providing access to the at least one island of more conductive material; and step (e) comprises activating said addressing electrode in conjunction with said first electrode (50) by emitting charge that passes through said at least one pinhole so as to apply a selected one of said first applied electric field and said second applied electric field produced between said first electrode and said at least one island so as to address said electrophoretic element (col.3, lines 40-67 & col.4, lines 1-10).

Dalisa et al. discloses, as in claim 38, the method wherein said display element comprises two protective layers (72) on opposed sides of said capsules, both said protective layers being adapted to transmit charge.

Dalisa et al. discloses, as in claim 39, a display (fig.2) comprising: (a) an

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electrophoretic display element (22) capable of changing its appearance in response to an electric field; (b) a protective layer (70) secured to said display element, adapted to prevent mechanical damage thereto and capable of transmitting charge to said display element.

Dalisa et al. discloses, as in claim 40, a display wherein said display element is essentially laminar having opposed first and second surfaces and protective layers are secured to both said first and second surfaces (fig.2).

***Allowable Subject Matter***

8. Claims 2-5 and 8-10, would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. Claims 21-24, 26- 33 & 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the claim(s), in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in claims 2-5, 8-10, 21-24, 26- 33 & 37, wherein the claimed invention comprises an electrophoretic display having an adjacent electrode comprising a protective layer and a palladium or polymeric protective layer of a plurality of conductors with the specific doped regions, resistivity, thickness and response to electrostatic voltages, as claimed.



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**Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are being cited for disclosing electrophoretic displays having various electrode configurations: Dalisa et al. (4203106); Cox et al. (4684219); Byker (4902108); Disanto et al. (5402145); and Duthaler et al. (6413790).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary O'Neill whose telephone number is 703-306-4828. The examiner can normally be reached on Monday - Thursday, 6:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y Epps can be reached on 703-308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7725 for regular communications and 703-308-7725 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Gary O'Neill  
Examiner  
Art Unit 2873

GO  
September 8, 2002



Georgia Epps  
Supervisory Patent Examiner  
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